

CLINICAL REPORT

The influence of hospital culture on rehabilitation team functioning in VA hospitals

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Abstract—A conceptual model of rehabilitation effectiveness, in which team functioning is influenced by hospital culture, has been previously suggested by several authors of this study. The current study tested the efficacy of the hospital culture portion of the model using survey data from 523 rehabilitation team members and 162 administrators from 50 participating Veterans Administration Hospitals (VAHs). We assessed four types of hospital culture (personal, dynamic, formal, and production-oriented) using an instrument developed originally for a Competing Values Model. Rehabilitation team members and administrators perceived three of the four hospital cultures differently ($p < 0.0001$), agreeing only on production-oriented culture. With the use of VAH dominant culture as the independent variable, statistically significant differences were found among all nine measures of team functioning (dependent variables). The major contrast was between personal versus formal hospital culture types.

Key words: *interprofessional relations, organizational culture, physical medicine and rehabilitation, social climate, teamwork, therapy.*

INTRODUCTION

Organizational culture, described as “. . . a learned product of group experience” is said to develop wherever there is “a definable group with a significant history” (1). Over the last two decades, organizational culture has emerged as an important explanatory variable for behavior and performance in the workplace (1–6). Progress has slowed, however, because of a lack of consensus among leading theorists and researchers regarding such important matters as definitions, measurement methods, and levels of analysis (1,7–12). Methodological disagreements aside, there appears to be reasonable consensus that (a) an organization’s culture consists of shared beliefs, assumptions, perceptions, and norms leading to patterns of behavior; (b) this culture results from an interaction among many variables, including mission, strategy, structure, leadership, and human resource practices; and (c) culture is self-reinforcing (“Once in place, cultures provide stability and certainty for their members.

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Individuals know what is expected, what is important, and what to do. They quite naturally resist any threatened disruption of the existing culture.” (13)).

In healthcare settings, the rehabilitation team is widely accepted as the preferred approach for meeting the complex array of biopsychosocial needs presented by patients traditionally receiving medical rehabilitation services (14,15). While its composition and methods are still evolving (16,17), there can be little doubt about its potential for complexity, both structurally and operationally. The rehabilitation team is composed of members from different professional disciplines (e.g., medicine, nursing, occupational therapy, physical therapy, social work, speech pathology, and others) and therefore has a rich blend of occupational modus operandi and cultures. The dynamics within rehabilitation teams present distinct challenges to the delivery of effective rehabilitation services. Despite the organizational complexity, rehabilitation team members and the team leader typically have limited administrative experience or training.

To provide a conceptual framework for this current study, we offer a modified version of a model of treatment effectiveness (18,19) (**Figure**). This model underscores the importance of rehabilitation team functioning in achieving patient outcomes and proposes that hospital culture influences the team. Using a classic systems approach of inputs, transformational processes, outcomes, and feedback, the model posits the rehabilitation team as a transformational agent affecting patient outcomes. Inputs include the patient and the hospital culture along with other organizational influences and specific characteristics of staff, family, and treatments. Outcomes in this model are patient-centered, such as functional improvement and discharge destination. The term “team functioning” represents a composite picture of team work. Team functioning emanates from team relations and is demonstrated in team actions.

The study presented here is part of a larger study of rehabilitation team functioning and effectiveness within Veterans Administration Hospitals (VAHs). The larger study is an examination of the relationship of team functioning to patient outcomes. This study focuses on the hospital culture as an input variable affecting the rehabilitation team functioning.

The term “functioning” was selected over “process.” With the rise of continuous quality improvement and its emphasis on process improvement, the term “process” carries diverse connotations. Team functioning conveys a

more focused sense of the way the team does its job. Our assessment of team functioning has domains of team relations and team actions. Team relations refer to the interpersonal and interprofessional cohesion of the team. Team actions are the activities of the team that characterize the work of the team.

We studied the influence of culture upon the functioning of the rehabilitation team. First, we described the dominant modes of culture operating within the VAHs, including tests for differences in the perceptions of culture between hospital administrators and rehabilitation team members. We hypothesized that hospital administrators and rehabilitation team members differ in their perceptions of VAH organizational culture and that, compared with rehabilitation team members, the perceptions of hospital administrators are more closely aligned with the stated mission of the Veterans Administration. Second, we examined the relationship between nine characteristics of team functioning and the specific modes of hospital culture. We hypothesized that the functioning of the teams differs according to the dominant organizational culture of their own VA hospital. Last, we examined associations between dominant hospital cultures for VAH rehabilitation teams and team functioning variables.

METHODS

Subjects and Data Collection

Data were obtained from 162 administrators and 768 members of 50 rehabilitation teams from 50 VAHs. The present analyses were restricted to core team members ($n = 523$), defined as members of six professional disciplines: medicine, nursing, occupational therapy, physical therapy, social work, and speech pathology. These disciplines were common to all 50 data collection sites and represented respondents with similar opportunities to contribute to the team functioning attributes being studied. The administrators ($n = 162$) were a similarly diverse group including hospital directors, chiefs of staff, executive nurses, associate directors, therapy supervisors, and physical medicine and rehabilitation service chiefs.

The data were collected on-site and in person by a team from the VA Medical Center in Atlanta, GA. Data collection took place in 1997–98. Approximately 2 to 3 years before collection of these data, the VA had initiated a major “transformational change” to replace “an older,

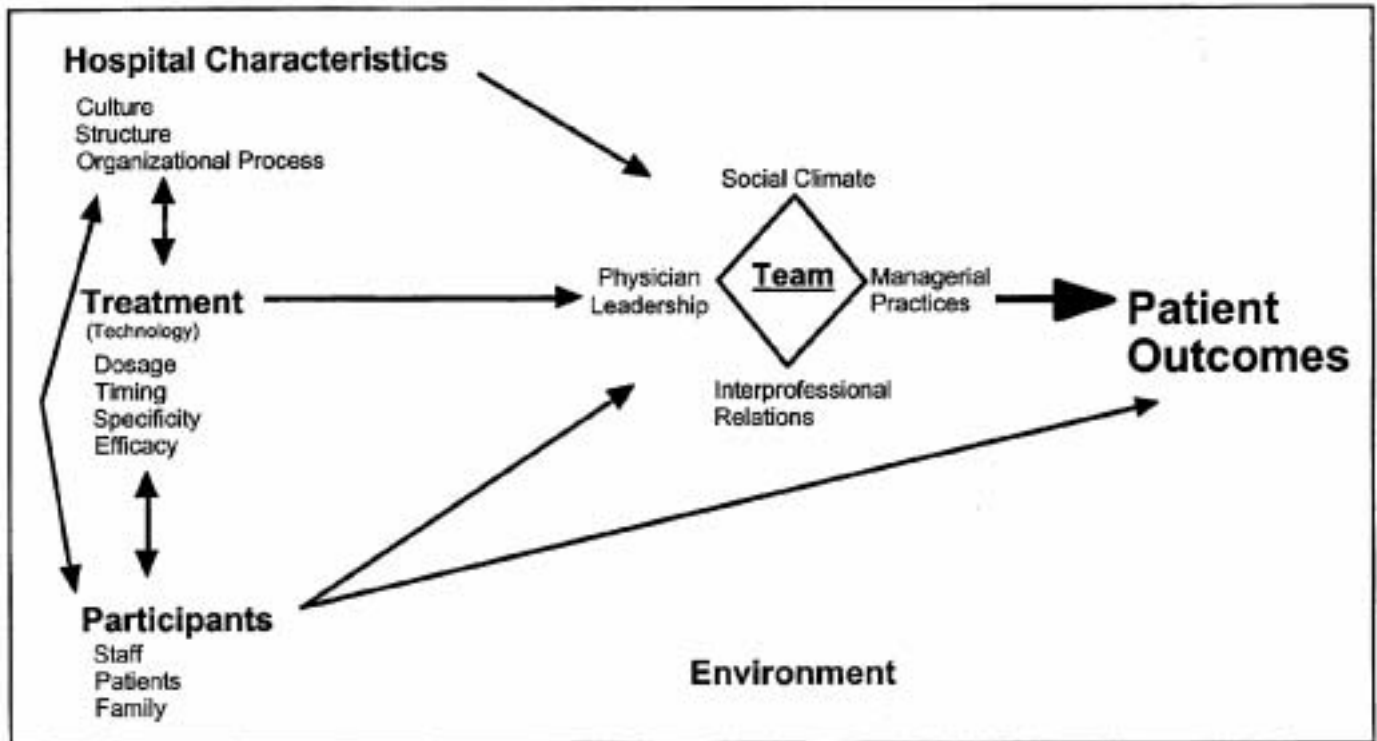


Figure.

Team functioning in rehabilitation effectiveness. Modified from Strasser DC and Falconer JA. Linking treatment to outcomes through teams: Building a conceptual model of rehabilitation effectiveness. *Top Stroke Rehabil* 1997;4:15–27 (18).

monolithic, military-type, top-down organization . . . with an integrated service network” (20). The attempt to change the nation’s largest healthcare system, with an annual budget of over \$17 billion, 200,000 employees, 173 hospitals, and over 1,000 care delivery sites, was a massive undertaking. The goal was to establish a new operating system that “emphasizes efficiency, collaboration and cooperation, and a quest for productivity by eliminating layers of bureaucracy and streamlining communications. . . .” (20). In specific terms, the changes involved a reduction in staff from 205,000 to 181,000 and the elimination of 17,000 acute care beds. This changed milieu presented the Zeitgeist for data collection for the study reported here.

Instrumentation and Scoring

Hospital Culture

The organizational culture of the hospital, hereafter referred to as hospital culture, was assessed with the use of the instrument and procedures developed by Shortell

and his associates (21), based upon a study involving over 7,000 respondents from a sample of 61 U.S. hospitals. In turn, Shortell based his work upon the Competing Values Model developed by Quinn and Kimberly (22) and Zammuto and Krakower (6). The Shortell scale has 20 items organized into five subscales. Each subscale addresses a given hospital characteristic (character, managers, cohesion, emphases, or rewards) and asks the respondent to assign 100 points among four types of hospitals: personal (A), dynamic (B), formal (C), and production-oriented (D). For each subscale, subjects were instructed to distribute 100 points among the four items, where each item represented one culture.

The four items on the subscale “character” are presented here for clarification.

Hospital Character (Please distribute 100 points)

1. Hospital A is a very personal place. It is a lot like an extended family. People seem to share a lot of themselves.

2. Hospital B is a very dynamic and entrepreneurial place. People are willing to stick their necks out and take risks.

3. Hospital C is a very formalized and structured place. Bureaucratic procedures generally govern what people do.

4. Hospital D is very production oriented. A major concern is with getting the job done. People are not very personally involved.

An equal distribution of points among the four cultures on all five subscales would result in a total score of 125 for each culture (25 points per subscale times 5 subscales), whereas distribution of all points to one culture would result in a score of 500 for that culture (100 points per subscale times 5 subscales) and 0 points for the remaining three cultures. For each subscale, respondent arithmetic errors were corrected by scaling nonblank responses to sum to 100. Because it was expected that all teams would have influences from each of the four cultures, to some extent, the highest culture score was used to categorize the dominant culture. If there was a tie, no dominant culture was assigned and the responses of that subject were dropped from the main analyses.

Team Functioning (Relations)

Five measures were used to assess team relations. Four of the measures were modified subscales from the Group Environment Scale-Form R developed by Moos and Humphrey (23) and applied to rehabilitation team functioning in an earlier study by Strasser, Falconer, and Martino-Saltzman (15):

1. Physician-Supported—The degree of help, concern, and friendship shown to rehabilitation team members by the attending physician in the course of leading the team;

2. Order and Organization—The degree of formality and structure of the rehabilitation team and the explicitness of team rules and sanctions;

3. Task-Oriented—The degree of emphasis on practical, concrete, and “down-to-earth” tasks and on decision-making and training; and

4. Innovative—The extent to which the rehabilitation team facilitates diversity and change in its own functions and activities.

In the terminology of Moos (24), these four subscales describe elements of the social climate in which a given rehabilitation team functions. For Denison (8), they con-

stitute measures of the organizational climate and serve as the context for rehabilitation team functioning.

The final measure of team relations is the Interprofessional Relations Scale. Originally developed by Golin and Ducanis (25) and known as the Interprofessional Perception Scale, it was modified by Strasser for use here, based upon earlier research results (15). The modified scale measures interprofessional relations in the context of team functioning. For example, “Members of this team trust my professional judgment,” scored “true/false.”

Team Functioning (Actions)

Four measures were used to assess team actions. Each of the four measures ranged from 5 to 10 items each, and was reported as the mean of the items for each response. A respondent's measure was calculated if at least 75 percent of the items for that measure were answered. Four Likert-type scales of varying length were used to measure rehabilitation team actions:

1. Teamness—Measures the extent to which the rehabilitation team functions as a team. In terms described by Schein (1), this is an important aspect of internal integration. For example, the degree to which members “incorporate divergent staff perspectives into a treatment consensus.”

2. Communication—The effort devoted to various types of communication among rehabilitation team members to do such things as “coordinate staff activities” and “involve family and caregivers in the patient's rehabilitation.”

3. Effectiveness—The effort devoted by the rehabilitation team to activities with known or assumed relationships to effectiveness, such as “establishing treatment goals” and “providing family and caregiver education.”

4. Collaboration—The degree to which collaborative actions within the rehabilitation team and between rehabilitation team members and hospital administrators have hindered or helped the achievement of optimal patient outcomes.

The scores for each scale are reported as the overall mean score (i.e., the sum of the ratings divided by the number of items), thereby making possible comparisons among the four action scales (teamness, communication, effectiveness, and collaboration) of unequal length.

Together, the nine measures of team functioning (five for relations and four for actions) served as dependent variables in the analyses. These nine measures are described further in **Table 1**.

Table 1.

Rehabilitation team functioning measures employed in study as dependent variables.

Dependent Variables	Number of Items	Alpha	Sample Item	Scoring
Team Relations				
Interprofessional relations	9	0.59	"Members of this team trust my professional judgment"	True = 1, False = 0
Physician-supported	9	0.84	"The attending physician helps new members get acquainted with the team"	True = 1, False = 0
Organized	9	0.81	"The team has a agenda for each meeting"	True = 1, False = 0
Task-oriented	9	0.75	"This team concentrates on dealing with everyday problems"	True = 1, False = 0
Innovative	9	0.69	"This team welcomes unusual ideas"	True = 1, False = 0
Team Actions				
Teamness	5	0.89	To what extent are the following items characteristic of your team "Constructively deal with disagreements"	1–7 (Anchored Likert Scale)
Communication	6	0.89	How would you characterize the effort members of the rehabilitation team usually devote to "Communicating patient information"	1–7 (Anchored Likert Scale)
Effectiveness	10	0.93	How satisfied are you with your team's effort devoted to "Establishing treatment goals"	1–7 (Anchored Likert Scale)
Collaboration	6	0.73	Collaboration: "With Medical Administration"	Anchored scale from –5 to 5

Statistical Analyses

Team Members Versus Administrators

To compare measures of hospital culture between rehabilitation team members and administrators, we performed t-tests using robust standard errors.

Team Functioning and Hospital Culture

Nine analyses of variances (ANOVAs) were used to examine associations between hospital culture score and computed to analyze mean score differences in the dependent measures across hospital cultures. Post-hoc, pair-wise comparisons between dominant culture groups were based upon cluster-adjusted t-tests (all tests were two-sided and p values < 0.05 were taken as indicating significant); these were Bonferroni-corrected to account for six simultaneous tests. All statistical tests were adjusted for clustering by hospital. All calculations were made using the STATA (College Station, TX) statistical package (26).

RESULTS

A total of 530 core rehabilitation team members and 164 administrators returned the survey. Of these, seven team members and two administrators did not assign any points to one or more questions in each category. These nine were excluded from the analysis. Of the remaining 523 rehabilitation team members and 162 administrators, 23 rehabilitation team members and 8 administrators had no dominant culture. These 31 had two or more culture classes to which they assigned their highest number of points, and they were excluded from the analysis of dominant rehabilitation team member scores.

Team Members Versus Administrators

The perceptions of the hospital culture for both rehabilitation team members and administrators are shown in **Table 2**. T-tests for groups with unequal variances revealed significant differences between rehabilitation team members and administrators on three of the four hospital culture types. Rehabilitation team members see their hospital cultures as significantly less personal, less

dynamic, and more formal than hospital administrators. However, both groups gave their highest ratings to the formal dimensions of their hospital cultures and the lowest ratings to the dynamic dimensions. Given the sizes of the response groups, there is an 80 percent power to detect differences of 11 to 21 points (according to culture measure) between the two groups.

Team Relations and Dominant Hospital Culture

The results of the five ANOVAs for tests of differences in team relations (physician-supported, organization, task-oriented, innovative, interprofessional relations) by dominant hospital culture (independent variable) are presented at the top of **Table 3**. For each of the five dimensions of team relations, the mean score of rehabilitation team members differed according to hospital culture (see center of **Table 3**). Visual inspection of the mean scores indicates the highest scores are found consistently in the personal culture and the lowest in the formal culture.

Further statistical analyses, using cluster-adjusted t-tests and Bonferroni corrections (see bottom of **Table 3**), confirmed this consistent pattern of significant differences between personal versus formal (p values ranging from 0.0012 to <0.0001). Inspection of the statistical comparisons indicated no significant differences in team relations scores between personal and dynamic cultures, followed by a mixed pattern of significant differences in team relations scores between other pairs of hospital cultures. Similar to the hospital culture scores in **Table 2** where Dynamic culture was rated lowest, the “innovative” social climate scores for the rehabilitation teams received the lowest scores.

Team Actions and Dominant Hospital Culture

The top of **Table 4** presents the results of the four ANOVAs for tests of differences in team actions (teamness, communication, effectiveness, collaboration) by

hospital culture (independent variable). Here too, the culture type was predicted by the scores of rehabilitation team members on team actions.

Cluster-adjusted t-tests, Bonferroni-corrected, again show (bottom of **Table 4**) a consistent pattern of significant differences in team actions in hospital cultures formal versus personal and formal versus dynamic. In no instance are the team actions in hospital cultures personal versus dynamic different or are formal versus production-oriented actions different. The highest team action scores are consistently found in the dynamic culture and the lowest scores are consistently found in the formal culture.

DISCUSSION

The major finding in this study is that rehabilitation team functioning, as measured on team relations and team actions, differs significantly among hospital cultures. In addition, teams having more personal and dynamic cultures scored highest on measures of team functioning, but represent the minority of VAHs. Theoretically, these findings add to the body of literature that suggests organizational culture is a major behavioral influence for individuals and groups operating within the context (27); the results support the inclusion of hospital culture variables in the dynamic model of rehabilitation-team functioning proposed by Strasser and Falconer (18). From a practical standpoint, the findings suggest that rehabilitation team functioning is a valid focus for intervention.

The specific domains of team functioning (e.g., relations and actions) may offer entry points in process improvement efforts to VA rehabilitation professionals. The identification of effective entry points could be facilitated by close examination of our specific measures of a

Table 2.
Hospital culture as perceived by rehabilitation team members and administrators.

Hospital Culture	Rehabilitation Team Members (n = 523)		Administrators (n = 162)		<i>t</i>	<i>p</i>
	Mean	SD	Mean	SD		
Hospital A: Personal	109.5	66.3	136.7	69.8	3.90	<0.0001
Hospital B: Dynamic	80.0	41.7	103.4	46.8	5.16	<0.0001
Hospital C: Formal	189.4	84.5	143.1	84.9	6.16	<0.0001
Hospital D: Production-oriented	121.4	50.3	84.9	6.16	1.31	0.199

Table 3.

Differences in rehabilitation team “relations” scores by hospital culture. Top section gives results of ANOVAs of each team relations measure against dominant hospital culture. Center section summarizes mean team relations scores for respondents in each dominant culture group. Bottom section reports *p* values for pairwise comparisons of each team relations measure between hospital culture types.

	Physician Supported (n = 481)		Organized (n = 486)		Task-Oriented (n = 490)		Innovative (n = 488)		Interprofessional Relations (n = 492)	
ANOVA	F	6.55		11.58		14.20		13.52		9.59
vs Hospital Culture	<i>p</i>	0.0008		<0.0001		<0.0001		<0.0001		<0.0001
Dominant Culture	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Hospital A: Personal	0.81	0.23	0.83	0.19	0.94	0.10	0.46	0.23	0.91	0.12
Hospital B: Dynamic	0.78	0.25	0.78	0.23	0.91	0.12	0.57	0.18	0.93	0.13
Hospital C: Formal	0.69	0.30	0.66	0.30	0.83	0.22	0.35	0.24	0.84	0.18
Hospital D: Production-oriented	0.75	0.28	0.75	0.25	0.87	0.18	0.42	0.21	0.85	0.15
Comparisons of mean team functioning measures across dominant VAH culture *										
	<i>p</i> value		<i>p</i> value		<i>p</i> value		<i>p</i> value		<i>p</i> value	
Personal vs. Formal	0.0012		<0.0003		<0.0003		0.0042		<0.0003	
Personal vs. Production-oriented	n.s.		0.0426		0.0240		n.s.		n.s.	
Dynamic vs. Formal	n.s.		0.0138		n.s.		<0.0003		0.0180	
Dynamic vs. Production-oriented	n.s.		n.s.		n.s.		0.0042		0.0498	
Formal vs. Production-oriented	n.s.		0.0468		n.s.		0.0462		n.s.	
* <i>p</i> values based upon cluster-adjusted t-tests that Bonferroni corrected for six pairwise comparisons.										

team actions (teamness, communication, effectiveness, and collaboration) and team relations (physician supported, order and organization, task orientation, innovation, and interprofessional relations). Furthermore, the quest to reduce the bureaucratic elements within the VAH may be an important step toward improving team processes.

The consistent pattern of positive differences in rehabilitation team functioning in VAH cultures that are more personal and dynamic in contrast to those that are more formal and bureaucratic, fits well with the research reported by Kirkman and Rosen (28). One could hypothesize that the personal culture provides the “social structure” and “human resource policies” that serve as two of the four important antecedents to empowerment in the Kirkman-Rosen model. In contrast, the formal culture, by definition, depersonalizes the context for team functioning, thereby reducing the psychological bases for empowerment found by Spreitzer (29).

While this study supports our clinical impression that team functioning is influenced by hospital culture, the dynamics of this relationship are not well described or understood. Analogies may shed light. The organiza-

tional culture of federal and state governments probably influence local governments. Likewise, the culture of the Board of Education and the school principal have an analogous influence on the social climate of a particular classroom. In these examples, we believe the social climate of the smaller unit (e.g., local government, classroom, rehabilitation team) is affected by the broader culture. The culture provides a context for the local activities through written and unwritten goals and shared behavioral expectations. Our study found a correlation between higher team action scores and dynamic VAH cultures and between lower team scores and formal VAH cultures. This suggests that the dynamic cultures somehow promote team actions while formal culture may discourage team actions.

The core rehabilitation team members and the administrators included in this study see their work environments quite differently. Rehabilitation team members see a VAH that is significantly less personal and dynamic than do the administrators who run it. Since managers and functional specialists have been reported to see organizational cultures differently (1,5), the present difference comes as no great surprise. Perhaps the attempts of

Table 4.

Differences in rehabilitation team "actions" by hospital culture. Top section gives results of ANOVAs of each team relations measure against dominant hospital culture. Center section summarizes mean team relations scores for respondents in each dominant culture group. Bottom section reports *p* values for pairwise comparisons of each team relations measure between hospital culture types.

	Teamness (n = 499)		Communications (n = 499)		Effectiveness (n = 496)		Collaboration (n = 489)	
ANOVA	F	17.95		13.32		15.91		13.20
vs Hospital Culture	<i>p</i>	0.0001		<0.0001		<0.0001		<0.0001
Dominant Culture	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Hospital A: Personal	6.0	0.7	5.8	0.9	5.7	0.9	9.3	0.9
Hospital B: Dynamic	6.1	0.8	5.9	1.0	5.8	0.9	9.5	0.6
Hospital C: Formal	5.3	1.1	5.1	1.1	4.9	1.1	8.8	1.1
Hospital D: Production-oriented	5.5	1.2	5.3	1.1	5.2	1.1	9.0	1.0
Comparisons of mean team functioning measures across dominant VAH culture types *								
	<i>p</i> value		<i>p</i> value		<i>p</i> value		<i>p</i> value	
Personal vs. Formal	<0.0003		<0.0003		<0.0003		0.0114	
Personal vs. Production oriented	0.0042		0.0120		0.0060		n.s.	
Dynamic vs. Formal	0.0024		0.0108		<0.0003		<0.0003	
Dynamic vs. Production oriented	n.s.		n.s.		0.0132		0.0012	
* <i>p</i> values based upon cluster-adjusted t-tests that Bonferroni corrected for six pairwise comparisons.								

Kizer (30,31) to change the VA healthcare system had achieved a degree of "buy-in" from the administrators (his likely entry point for change) by the time data collection occurred for this study, but it seems that change efforts have not yet penetrated the clinical service levels of the system.

The discussion of clinician versus administrator perceptions of VAH cultures is not meant to imply that one group is correct and the perceptions of the other group are inaccurate. It is more likely that the VAH culture is not monolithic. A number of theorists (2,32,33) have argued that a single, unitary organizational culture is the exception, not the rule. Subculture proponents conclude, "Therefore, rather than asking how an organization's generalized culture affects performance, it may frequently be more accurate to study how its multiple subcultures interact to influence outcomes" (32, p. 548). The culture versus climate debate discussed by Denison (8) may be relevant here.

The administrators and rehabilitation team members each see hospital culture from the context of the day-to-day social climates of their specific work settings. Differences in social climate could very well moderate their perceptions of hospital culture. In the present study, both rehabilitation team members and administrators saw the formal hospital culture type as dominant, suggesting that

Kizer's (20,30) attempts to reduce bureaucracy were well founded. The fact that they differed significantly in the degree to which they perceived their work environment as formal is likely a natural effect of their different vantage points.

Moos (24) has argued the importance of looking at the social climate of groups to promote better understanding of their functioning. In this study, the rehabilitation teams were rated as more "task-oriented" than "innovative," in terms of social climate. This finding is consistent with earlier findings by Strasser, Falconer, and Martino-Saltzman (15). They studied three rehabilitation teams offering specialized services in a large, free-standing rehabilitation hospital in Chicago. Based upon their findings, they concluded, "The tentative portrait of rehabilitation teams that emerges . . . is that of task orientation with a sense of cohesion and a set way of doing things" (p. 181). While we do not know the nature of hospital culture in the 1994 study, it, too, may have been formal because of the age and size of the hospital. If not, the similarity of portraits of the rehabilitation team in these two studies suggests an alternative explanation to the hospital culture assertions made earlier. Perhaps the treatment tasks help to dictate the social climate of the rehabilitation team. This would be consistent with a recent study by Stewart and Barrick (34) who found that the

relationship between team structure and performance was moderated by the tasks assigned to it.

In a stable environment with limited technological advances, the high task-oriented, low-innovation rehabilitation team is likely to perform adequately. But, let us assume for purposes of discussion that the fast-changing technology and structure in healthcare in general suggests a need for change in VAHs.

The starting point for change, and, therefore, for an organizational development (OD) intervention, is often described as a tension between existing structures and systems and those required to cope effectively and efficiently with changes in the external social, political, economic, and/or technological environments. Such tension serves as the catalyst for the change process (22) and is often accompanied by the emergence of a change agent. Such appears to be the recent history of the attempts to restructure the Veterans Health Administration (VHA) (20,30,31). The vision was to transform the VHA into a more efficient and patient-centered healthcare system through structural change.

The proposed structure optimizes the ability of the VHA to function as both an integrated and a virtual healthcare organization. It provides structural incentives for efficiency, quality, and improved access; builds in a formal means of ensuring a high degree of stakeholder involvement; and provides for a level of accountability not typical of government agencies (30, p. 7).

But the change agent, Dr. Kizer, went on to state, "... [T]he planned organizational structure merely provides a template upon which new attitudes and behavior will be encouraged and rewarded, and around which a new organizational culture can grow. This transformation will take time, and the difficulty of changing a decades-old culture in the second largest bureaucracy in the federal government should not be underestimated" (30, p. 7).

Do the present findings have any utility in suggesting a change strategy? We think they provide a modest starting point for discussion. First, the results suggest that the use of OD methods in VAHs would be quite challenging. While both the administrators and rehabilitation team members see the general culture as characterized by high formality and low innovation, the significant differences in the perceptions of the two groups suggest an uneven mandate for change. Or, perhaps more accurately, multiple subcultures in the VAH may be experiencing different degrees of the "tension" that stimulates change. Likewise, the low innovation scores suggest few internal

role models or change agents that could serve as a human infrastructure for change. Max Weber, the early leading proponent of the bureaucratic model, designed bureaucracy to promote stability. Once in place, a strong bureaucracy has many natural mechanisms that resist change.

Second, the present findings could serve as one of the front-end action research pieces that often precede OD interventions. In 1978, French and Bell (35) offered a comprehensive definition of OD that helps put this point in context by stating that "organizational development is a long-range effort to improve an organization's problem-solving and renewal processes, particularly through a more effective and collaborative management of organizational culture—with special emphasis on the culture of formal work groups—with the assistance of a change agent, or catalyst, and the use of theory and technology of applied behavior science, including action research" (35, p. 14).

The findings from this study may offer clues from rehabilitation as to specific entry points into an organizational development strategy. For example, we found:

1. Rehabilitation team functioning (relations and actions) are significantly more positive in VAH cultures characterized as personal and dynamic.
2. While the social climate of the rehabilitation team is characterized as highly task-oriented with much less attention to innovation, physician-supported social climates exist to a moderate degree across all hospital culture settings.
3. While organizational culture is recognized as difficult to change, organizational climate is said to be "subject to manipulation by people with power and influence" (8, p. 644).

Therefore, a starting point for an OD strategy might be to train attending physicians as change agents, targeting them on the task of developing stronger social climates characterized by innovation. The "physician-supported" social climate, as assessed in this study, provides an environment with some characteristics of the personal culture. Since personal and dynamic hospital cultures were not significantly different in terms of rehabilitation team functioning, attending physicians in a "physician-supported" work setting may be able to lead a move toward greater innovation. While such a bottom-up strategy is unlikely to have a discernible impact on the VAH's bureaucratic structure and culture of formality, it could prepare clinical service delivery teams to better

meet the challenges of rapidly changing healthcare technologies and systems.

CONCLUSION

This study explored the relationship of VAH organizational culture to rehabilitation team functioning. The study found evidence to support the hypotheses that rehabilitation team members and VAH administrators differ in their perception of the hospital culture and that culture is associated with team functioning. Rehabilitation teams in VAH cultures perceived as more personal and dynamic had higher ratings of team functioning. This association was found on measures of team relations (interprofessional relations, physician support, organization, task orientation, and innovation), and on measures of team actions (teamness, communication, effectiveness, and collaboration). Findings from this study suggest that culture may influence team effectiveness and, hence, patient rehabilitation outcomes. Furthermore, suggestions were offered on how these findings could be used in VA organizational development.

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